

SEQUENCE LISTING

<110> Quirk, S.

<120> Detection and identification of enteric bacteria

<130> 1443.013US1

<140> US 09/991,552

<141> 2001-11-21

<160> 36

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 1518

<212> DNA

<213> Escherichia coli

<400> 1

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aactctccgg	caattcgtcg	tctgcaacaa	aagaccagg	ttttccact	ggagcgcaat	180
gccgccgtgc	gcacgcgtct	taccactcgc	atggaagtcc	agcaggtggg	gcgctacatc	240
gccaaagaaa	ttttaagccg	tctgaaagag	cttaaattac	tggaagcata	cggcctggat	300
gaactgaccg	gtccctttga	aagcattggt	gagatgtcat	gcctgatgca	cgatatcggc	360
aatccgcggt	ttgggtcattt	tggcgaagcg	gcgataaatg	actggtttcg	ccaacgtttg	420
cacccggaag	atgccgaaag	ccagcctctg	actgacgac	gctgcagcgt	ggcggcacta	480
cgtttacggg	acggggaaga	accgcttaac	gagctgcggc	gcaagattcg	tcaggactta	540
tgtcattttg	aggggaatgc	acaaggcatt	cgcctggtgc	atacattgat	gcggatgaat	600
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gaaacgcctg	agacacatca	ctattttaatg	aaaaagccgg	gttattatct	ttctgaagaa	720
gcctatatgg	cccggttgcg	taaagaactt	aatttggcgc	tttacagtcg	ttttccatta	780
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cagcatgaga	aaggttcgtc	cttttcgctg	gtggttgaaa	atgcctggga	aaaatcacgc	960
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ctaaataaac	tggtacccta	cgcggcacaa	cgattttattg	ataatctgcc	tgcgattttc	1080
gccggaacgt	ttaatcatgc	attattggaa	gatgccagcg	aatgcagcga	tcttcttaag	1140
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tcgttatcag	actttactga	actggtagaa	aaagaacggg	tgaacgttt	ccctattgaa	1320
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aaattaccgt	cagattctcc	tgagtttccg	ctatgggaat	attattaccg	ttgccgcctg	1440
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<213> Escherichia coli

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Glu Ser Asp Arg Gly Arg Ile Ile Asn Ser Pro Ala Ile Arg Arg Leu
35 40 45
Gln Gln Lys Thr Gln Val Phe Pro Leu Glu Arg Asn Ala Ala Val Arg
50 55 60
Thr Arg Leu Thr His Ser Met Glu Val Gln Gln Val Gly Arg Tyr Ile
65 70 75 80
Ala Lys Glu Ile Leu Ser Arg Leu Lys Ser Leu Asn Thr Glu Leu Thr
85 90 95
Gly Pro Phe Glu Ser Ile Val Glu Tyr Ala Cys Leu Met His Asp Ile
100 105 110
Ala Ile Arg Arg Leu Val Ile Leu Ala Lys Arg Thr Ile Asn Asp Trp
115 120 125
Phe Gly Gln Arg Leu His Pro Glu Asp Ala Glu Ser Gln Pro Leu Thr
130 135 140
Asp Arg Cys Ser Val Ala Leu Arg Leu Arg Thr Gly Lys Asn Arg
145 150 155 160
Leu Thr Ser Cys Gly Ala Arg Phe Val Arg Thr Tyr Val Ile Leu Arg
165 170 175
Gly Met His Lys His Ser Pro Gly Ala Tyr Ile Asp Ala Asp Glu Ser
180 185 190
His Leu Gly Thr Gly Trp Arg Tyr Phe Lys Ile Tyr Pro Ser Gly Val
195 200 205
Val Ala Cys Glu Thr Pro Glu Thr His His Tyr Leu Met Lys Lys Pro
210 215 220
Gly Tyr Tyr Leu Ser Glu Glu Ala Tyr Ile Ala Arg Leu Arg Lys Glu
225 230 235 240
Leu Asn Leu Ala Leu Tyr Ser Arg Phe Pro Leu Thr Trp Ile Met Glu
245 250 255
Ala Ala Asp Asp Ile Ser Tyr Cys Val Ala Asp Leu Glu Asp Ala Val
260 265 270
Glu Lys Arg Ile Phe Thr Val Glu Gln Leu Tyr His His Leu His Glu
275 280 285
Ala Trp Gly Gln His Glu Lys Gly Ser Leu Phe Ser Leu Val Val Glu
290 295 300
Asn Ala Trp Glu Lys Ser Arg Ser Asn Ser Leu Ser Arg Ser Thr Glu
305 310 315 320
Asp Gln Phe Phe Met Tyr Leu Arg Val Asn Thr Leu Asn Lys Leu Val
325 330 335
Pro Tyr Ala Ala Gln Arg Phe Ile Asp Asn Leu Pro Ala Ile Phe Ala
340 345 350
Gly Arg Phe Asn His Ala Leu Leu Glu Asp Ala Ser Glu Cys Ser Asp
355 360 365
Leu Leu Lys Leu Tyr Lys Asn Val Ala Val Lys His Val Phe Ser His
370 375 380

Pro	Asp	Val	Glu	Arg	Leu	Glu	Leu	Gln	Gly	Tyr	Arg	Val	Ile	Ser	Gly	385	390	395	400
Leu	Leu	Glu	Ile	Tyr	Arg	Pro	Leu	Leu	Ser	Leu	Ser	Leu	Ser	Asp	Phe	405	410	415	
Thr	Glu	Leu	Val	Glu	Lys	Glu	Arg	Val	Lys	Arg	Phe	Pro	Ile	Glu	Ser	420	425	430	
Arg	Leu	Phe	His	Lys	Leu	Ser	Thr	Pro	His	Arg	Leu	Ala	Tyr	Val	Glu	435	440	445	
Ala	Val	Ser	Lys	Leu	Pro	Ser	Asp	Ser	Pro	Glu	Phe	Pro	Leu	Trp	Glu	450	455	460	
Tyr	Tyr	Tyr	Arg	Cys	Arg	Leu	Leu	Gln	Asp	Tyr	Ile	Ser	Gly	Met	Thr	465	470	475	480
Asp	Leu	Tyr	Ala	Trp	Asp	Glu	Tyr	Arg	Arg	Leu	Met	Ala	Val	Glu	Gln	485	490		495

<210> 20

<211> 495

<212> PRT

<213> Salmonella typhimurium

<400> 20

Met	Ala	Ser	Ile	Asp	Phe	Arg	Asn	Lys	Ile	Asn	Trp	His	Arg	Arg	Tyr	1	5	10	15
Arg	Ser	Pro	Gln	Gly	Val	Lys	Thr	Glu	His	Glu	Ile	Leu	Arg	Ile	Phe	20	25	30	
Glu	Ser	Asp	Arg	Gly	Arg	Leu	Ile	Asn	Ser	Pro	Ala	Ile	Arg	Arg	Leu	35	40	45	
Gln	Gln	Lys	Thr	Gln	Val	Phe	Pro	Leu	Glu	Arg	Asn	Ala	Ala	Val	Arg	50	55	60	
Thr	Arg	Leu	Thr	His	Ser	Met	Glu	Val	Gln	Gln	Val	Gly	Arg	Tyr	Ile	65	70	75	80
Ala	Lys	Glu	Ile	Leu	Ser	Arg	Leu	Lys	Glu	Gln	Asp	Arg	Leu	Glu	Glu	85	90	95	
Tyr	Gly	Leu	Asp	Ala	Leu	Thr	Gly	Pro	Phe	Glu	Ser	Ile	Val	Glu	Met	100	105	110	
Ala	Cys	Leu	Met	His	Asp	Ile	Gly	Asn	Pro	Pro	Phe	Gly	His	Phe	Gly	115	120	125	
Glu	Ala	Ala	Ile	Asn	Asp	Trp	Phe	Arg	Gln	Arg	Leu	His	Pro	Glu	Asp	130	135	140	
Ala	Glu	Ser	Gln	Pro	Leu	Thr	His	Asp	Arg	Cys	Val	Val	Phe	Ser	Leu	145	150	155	160
Arg	Leu	Gln	Lys	Tyr	Val	Arg	Asp	Ile	Cys	His	Leu	Lys	Ala	Cys	Thr	165	170	175	
Arg	Glu	Phe	Val	Cys	Thr	Ile	Arg	Ser	Cys	Gly	Gly	Ile	Leu	Thr	Trp	180	185	190	
Ala	Ala	Val	Arg	Pro	Asn	Phe	Lys	Asn	Ile	Pro	Val	Pro	Ala	Cys	Trp	195	200	205	
Pro	Arg	Gly	Arg	Ser	Arg	Ile	Pro	Ile	Arg	Tyr	Leu	Met	Lys	Lys	Pro	210	215	220	
Arg	Tyr	Tyr	Leu	Ser	Glu	Glu	Lys	Tyr	Ile	Ala	Arg	Leu	Arg	Lys	Glu	225	230	235	240
Leu	Gln	Leu	Arg	Pro	Tyr	Ser	Arg	Phe	Pro	Leu	Thr	Trp	Ile	Met	Glu	245	250	255	
Ala	Ala	Asp	Asp	Ile	Ser	Tyr	Cys	Val	Ala	Asp	Leu	Glu	Asp	Ala	Val	260	265	270	
Glu	Lys	Arg	Ile	Phe	Ser	Val	Glu	Gln	Leu	Tyr	His	His	Leu	Tyr	His	275	280	285	

Ala	Trp	Cys	His	His	Glu	Lys	Asp	Ser	Leu	Phe	Glu	Leu	Val	Val	Gly
290						295				300					
Asn	Ala	Trp	Glu	Lys	Ser	Arg	Ala	Asn	Thr	Leu	Ser	Arg	Ser	Thr	Glu
305					310					315					320
Asp	Gln	Phe	Phe	Met	Tyr	Leu	Arg	Val	Asn	Thr	Leu	Asn	Lys	Leu	Val
				325					330					335	
Pro	Tyr	Ala	Gln	Arg	Phe	Ile	Asp	Asn	Leu	Pro	Gln	Ile	Phe	Ala	Gly
		340					345						350		
Thr	Phe	Asn	Gln	Ala	Leu	Leu	Glu	Asp	Ala	Ser	Gly	Phe	Ser	Arg	Leu
	355						360					365			
Leu	Glu	Leu	Tyr	Lys	Asn	Val	Ala	Val	Glu	His	Val	Phe	Ser	His	Pro
370					375					380					
Asp	Val	Glu	Gln	Leu	Glu	Leu	Gln	Gly	Tyr	Arg	Val	Ile	Ser	Gly	Leu
385					390				395						400
Leu	Asp	Ile	Tyr	Gln	Pro	Leu	Leu	Ser	Leu	Ser	Leu	Asn	Asp	Phe	Arg
				405					410					415	
Glu	Leu	Val	Glu	Lys	Glu	Arg	Leu	Lys	Arg	Phe	Pro	Ile	Glu	Ser	Arg
		420						425					430		
Leu	Phe	Gln	Lys	Leu	Ser	Thr	Arg	His	Arg	Leu	Ala	Tyr	Val	Glu	Val
	435						440					445			
Val	Ser	Lys	Leu	Pro	Thr	Asp	Ser	Ala	Glu	Tyr	Pro	Val	Leu	Glu	Tyr
450					455					460					
Tyr	Tyr	Arg	Cys	Arg	Leu	Ile	Gln	Asp	Tyr	Ile	Ser	Gly	Met	Thr	Asp
465					470				475						480
Leu	Tyr	Ala	Trp	Asp	Glu	Tyr	Arg	Arg	Leu	Met	Ala	Val	Glu	Gln	
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<212> PRT

<213> Klebsiella oxytoca

<400> 21

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Arg	Ser	Pro	Pro	Arg	Val	Glu	Thr	Glu	Arg	Asp	Ile	Leu	Arg	Ile	Phe
			20					25					30		
Glu	Ser	Asp	Arg	Gly	Arg	Ile	Val	Asn	Ser	Pro	Ala	Ile	Arg	Arg	Leu
		35					40					45			
Gln	Gln	Lys	Thr	Gln	Val	Phe	Pro	Leu	Glu	Arg	Asn	Gly	Arg	Val	Arg
	50					55					60				
Thr	Arg	Leu	Thr	His	Ser	Leu	Glu	Val	Gln	Gln	Val	Gly	Arg	Tyr	Ile
65				70					75					80	
Ala	Lys	Glu	Val	Leu	Ser	Arg	Leu	Lys	Glu	Leu	Arg	Leu	Leu	Glu	Glu
				85					90					95	
Tyr	Gly	Leu	Glu	Glu	Leu	Thr	Gly	Pro	Phe	Glu	Ser	Val	Val	Glu	Met
		100						105					110		
Ala	Cys	Leu	Met	His	Asp	Ile	Gly	Asn	Pro	Pro	Phe	Gly	His	Phe	Gly
		115					120					125			
Glu	Ala	Ala	Ile	Asn	Asp	Trp	Phe	Arg	Gln	Arg	Leu	Ala	Pro	Gly	Asp
	130					135					140				
Ala	Leu	Gly	Gln	Pro	Leu	Thr	Asp	Asp	Arg	Cys	Glu	Val	Gln	Ala	Leu
145					150				155					160	
Arg	Leu	His	Asp	Gly	Glu	Thr	Ser	Leu	Asn	Ala	Leu	Arg	Arg	Lys	Val
			165						170					175	
Arg	Gln	Asp	Leu	Cys	Ser	Phe	Glu	Gly	Asn	Ala	Gln	Gly	Ile	Arg	Leu
			180					185						190	

Val	His	Thr	Leu	Met	Arg	Met	Asn	Leu	Thr	Trp	Ala	Gln	Val	Gly	Cys
		195					200					205			
Ile	Leu	Lys	Tyr	Thr	Arg	Pro	Ala	Trp	Trp	Ser	Glu	Glu	Thr	Pro	Ala
	210					215				220					
Ser	His	Ser	Tyr	Leu	Met	Lys	Lys	Pro	Gly	Tyr	Tyr	Leu	Ala	Glu	Glu
225					230					235				240	
Glu	Tyr	Val	Ala	Arg	Leu	Arg	Lys	Glu	Leu	Asp	Leu	Ala	Pro	Tyr	Asn
			245					250					255		
Arg	Phe	Pro	Leu	Thr	Trp	Ile	Met	Glu	Ala	Ala	Asp	Asp	Ile	Ser	Tyr
		260						265					270		
Cys	Val	Ala	Asp	Leu	Glu	Asp	Ala	Val	Glu	Lys	Arg	Ile	Phe	Ser	Ala
	275						280					285			
Glu	Gln	Leu	Tyr	Gln	His	Leu	Tyr	Asp	Ala	Trp	Gly	Ser	His	Val	Lys
	290					295					300				
Arg	Ser	Arg	Tyr	Ser	Gln	Val	Val	Glu	Asn	Ala	Trp	Glu	Lys	Ser	Arg
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Ala	Asn	Tyr	Leu	Lys	Gln	Ser	Ala	Glu	Asp	Gln	Phe				
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<213> Escherichia

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Ser Val Ala Ala

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Glu Val Gln Ala

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<213> Yersinia

<400> 28

Leu Val Asn Thr

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<213> Salmonella

<400> 29

Gln Glu Gly Glu Glu Asn Leu Asn Asp

1

5

<210> 30

<211> 9

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<213> Escherichia

<400> 30

Arg Asp Gly Glu Glu Pro Leu Asn Glu

1

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<213> Klebsiella

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